ABSTRACT OF THE DISCLOSURE

An impedance warping circuit (IWC) and technique for compensating the effect of a blocking capacitor within a transformer of an interface circuit for passing plain old telephone service (POTS) band and asynchronous digital subscriber line (ADSL) band signals on signals having frequencies in the POTS band. The IWC does not significantly affect the performance of the interface circuit in the ADSL band. The IWC synthesizes impedance to compensate the frequency-dependent deviation in the termination impedance across the tip/ring lines. The resulting termination impedance may be designed to conform to the Telcordia Standard of 900 Ω + 2.16 μF or other telecommunication standards throughout the entire POTS band.